1099**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

NCR Corporation Docket No. 10994

In re application of: DURRANT, D. J. et al.

Serial No. 09/541,137

Filed:  March 31, 2000

For:  METHOD AND SYSTEM FOR IDENTIFYING MANUFACTURING ANOMALIES
IN A MANUFACTURING SYSTEM

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

**RECEIVED**

SEP 1 1 2003

Technology Center 2100

Transmitted herewith is an amendment in the above-identified application.

☒   No additional fee is required.

The fee has been calculated as shown below:

## CLAIMS AS AMENDED

| FOR | Claims Remaining After Amendment | | Highest Number Previously Paid For | Extra Present | Rate | Additional Fee |
|---|---|---|---|---|---|---|
| Total Claims | 12 | - | 20 | 0 X | $ 18 = | $ 0 |
| Independent Claims | 2 | - | 3 | 0 X | $ 84 = | $ 0 |
| Total additional fee for this amendment -----> | | | | | | $ 0 |

* If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5.

** If the "Highest Number Previously Paid For" in this space is less than 20, write "20" in this space.

*** If the "Highest Number Previously Paid For" in this space is less than 3, write "3" in this space.

☐   Please charge the above fee to the account of NCR Corporation,
Deposit Account No. 50-1673.

Respectfully,

James M. Stover
Reg. No. 32,759

---

CERTIFICATION OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on
9-4-2003.

By: _____
Name: Sallie A. Spicer

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Dayton, Ohio

Docket No. 10994

Application of:

DURRANT, D. J. et al.                    Group Art Unit: 2125

Serial No. 09/541,137                   Examiner: RAO, SHEELA S.

Filed: March 31, 2000

For:   **METHOD AND SYSTEM FOR IDENTIFYING MANUFACTURING
ANOMALIES IN A MANUFACTURING SYSTEM**

Assistant Commissioner for Patents

Washington, D.C.   20231

**RESPONSE**

Sir:

The following remarks are presented in response to the Official Action

dated May 6, 2003, wherein the Examiner rejected claims 1 through 12 of the

present application under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No.

6,301,517 issued to Doran et al.  Claims 1 through 12 of the present application

are provided in an appendix to this response.

The present application describes and claims a system and method that

stores product manufacturing parameters within a database, analyzes the stored

product manufacturing parameters to define one or more normal parameter

subsets, and detects manufacturing parameters that are not contained within a

normal subset in order to identify manufacturing anomalies.  The present

---

CERTIFICATION OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first
class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on
9-4-2003.

By: _Sallie Spicer_
Name: _Sallie Spicer_

application includes two independent claims, claims 1 and 7. The remaining claims in the present application depend from claim 1 or claim 7. Independent method claim 1 recites:

1.     A method for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of *manufacturing parameters*, the method comprising the steps of

storing the plurality of *manufacturing parameters* in a data warehouse;

applying a data mining program to perform the steps of:

analyzing the stored *manufacturing parameters* to define a first normal manufacturing parameter subset;

detecting at least one of the plurality of *manufacturing parameters* that is excluded from the first normal subset; and

reporting the at least one detected *manufacturing parameter*. (emphasis added)


Independent apparatus claim 7 recites:

7.     A system for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of *manufacturing parameters*, comprising:

a data warehouse for storing the plurality of *manufacturing parameters*;

a data mining program applied to the data warehouse for analyzing the stored *manufacturing parameters* to define a first normal manufacturing parameter subset and detecting at least one of the plurality of *manufacturing parameters* that is excluded from the first normal subset; and

a reporting means for reporting the at least one detected *manufacturing parameter*. (emphasis added)

2

In Applicant's response to the prior Official Action dated September 26, 2002, an attempt was made to distinguish the claims of the present application, which each include limitations pertaining to manufacturing parameters, from the teaching contained in Doran et al. It was neither the intention nor desire of the Applicant that limitations in the specification of the present application be read into the claims. Reference was made to the specification to provide an explanation and understanding of the term "manufacturing parameters" that appears numerous times in each of the claims. Several examples of manufacturing parameters were cited from the specification to aid in this explanation. It is believed that the meaning attributed to the term manufacturing parameters in the specification of the present application is consistent with the ordinary and customary meaning attributed to the term by those skilled in the art.

Applicant respectfully requests that the term manufacturing parameters be accorded the meaning attributed thereto in the specification of the present application, and that the claims of the present application be interpreted accordingly.

It is believed that the invention as recited in each one of the claims of the present application differs from the system taught in Doran et al. Doran et al. discloses an automated monitoring and notification system for identifying potentially faulty test sockets within a test system and notify the proper user of the location of these potentially faulty test sockets. The system described at column 3, lines 29-42, of Doran et al. includes a manufacturing database that stores test data associated with each test socket. Failure rate information for each socket obtained from the manufacturing database is compared against a predetermined threshold to identify potentially faulty test sockets. In contrast, the method and system recited in claims 1 and 7, respectively, of the present application stores product manufacturing parameters within a database, analyzes the stored product
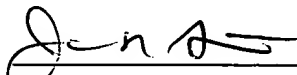
3

manufacturing parameters to define one or more normal parameter subsets, and detects manufacturing parameters that are not contained within a normal subset in order to identify manufacturing anomalies. Doran et al. does not include any discussion or teaching concerning manufacturing parameters, or the storage, analysis, and detection of manufacturing parameters.

Examples of manufacturing parameters are provided in the specification and include: the tolerance of a lot of resistors, the threshold of a lot of resistors, the capacitance of a lot of capacitors, the reactance of a lot of capacitors, the supplier from which a lot originated, the shipping method used for transporting a lot of components, and the time of year that a lot of components was manufactured. Socket test data, discussed in Doran et al., is plainly different from manufacturing parameters, as these examples illustrate.

It is believed that the claims of the present application are patentable over the cited reference to Doran et al. Doran et al does not teach or suggest a system that stores product manufacturing parameters within a database, analyzes the stored product manufacturing parameters to define one or more normal parameter subsets, and detects manufacturing parameters that are not contained within a normal subset in order to identify manufacturing anomalies.

Review and reconsideration of the present application is respectfully requested.

Respectfully submitted,

James M. Stover
Reg. No. 32,759

NCR Corporation
1700 South Patterson Blvd.
Dayton, Ohio 45479-0001
Tel. No. (937) 445-7663
Fax No. (937) 445-4792